

GAMING MACHINE

BACKGROUND OF THE INVENTION

[0001] 1. Field of the Invention

[0002] The present invention relates to a gaming machine including a liquid crystal display.

[0003] 2. Description of the Related Art

[0004] A recent slot machine including stop buttons or a pinball slot machine (a so-called "Pachi-Slot machine" in Japan) has a variable display means provided with a plurality of rotation reels for variably displaying symbols in a front display window. As the player performs start operation, control means controls the variable display means for rotating the reels, thereby variably displaying symbols. Then, the rotating reels are stopped in order automatically in a given time or as the player performs stop operation. At this time, if the symbols on the reels appearing in the display window become a specific combination (winning symbol combination), game medium such as medals or coins are paid out to the player as the prize of the win.

[0005] The currently predominant pinball slot machine has a display window for the player to visually check symbols on reels on the front of the machine and a liquid crystal display for displaying an effect image concerning game play on a side of, below, or above the display window (namely, a position not overlapping the display window from the viewpoint of the player). Such a liquid crystal display generally is provided with a liquid crystal backlight implemented as a cold-cathode tube for producing sharp display.

[0006] Generally, reel backlights implemented as white light emitting diodes are provided for illuminating the symbols on the reel belts from behind to project the symbols onto the display windows.

[0007] A reel wheel around which the reel belt is wound generally uses a member having a black surface, and the reel wheel and the reel belt are distinguished from each other in visual observation.

[0008] The structure described above is disclosed in JP-A-2001-353255 (see page 3; and FIG. 5).

SUMMARY OF THE INVENTION

[0009] However, if an attempt is made to dispose the liquid crystal display so that a part of the liquid crystal display overlaps the display window, the reel representing the symbols exists just behind the display window and no liquid crystal backlight can be provided in the portion of the display window of the liquid crystal display and thus a reel backlight for illuminating the symbols on the reel from behind is used supplementally as a liquid crystal backlight. The reel wheel blocks light of the reel backlight, a shadow of the reel wheel is cast over the image. Therefore, there occurs a problem that the image in the portion over which the shadow is cast does not develop color, the view of the player who visually checks the image on liquid crystal is obstructed, and the player cannot clearly visually check and recognize the essential image.

[0010] It is an object of the invention to provide a gaming machine for making it possible to prevent the shadow of

each reel from being cast over an image and enabling the player to clearly visually check the essentially image and enjoy playing a game.

[0011] According to one aspect of the invention, there is provided a gaming machine including: a plurality of symbol strips (for example, reel belts **340**) each having a plurality of symbols; a plurality of annular bodies (for example, reel wheels **330**, particularly rims **330a** and **330b**, any other body to which the symbol strip is attached annularly) to which each of the symbol strips are annularly attached; image display means (for example, liquid crystal **504**) provided in front of the plurality of annular bodies and configured to display an image concerning a game, and a light source (for example, reel backlights **513**) configured to illuminate the symbols from behind the symbols, wherein the plurality of annular bodies are made transparent or semitransparent for transmitting light from the light source in the direction of the image display means.

[0012] According to the configuration, the light from the light source passes through the annular body and arrives at the image display means, so that an image is sharply displayed even at a position where the shadow of the annular body is cast; the shadow of the annular body is not cast over the image, enabling the player to clearly visually check the image and enjoy playing a game.

[0013] According to another aspect of the invention, there is provided a gaming machine including: a plurality of symbol strips (for example, reel belts **340**) each having a plurality of symbols; a plurality of annular bodies (for example, reel wheels **330**, particularly rims **330a** and **330b**, any other body to which the symbol strip is attached annularly) to which each of the symbol strips are annularly attached; image display means (for example, liquid crystal **504**) provided in front of the plurality of annular bodies and configured to display an image concerning a game; and a light source (for example, reel backlights **513**) configured to illuminate the symbols from behind the symbols, wherein the plurality of annular bodies are formed to diffuse light from the light source in the direction of the image display means.

[0014] According to the configuration, the light from the light source is diffused through the annular body and arrives at the image display means, so that an image is sharply displayed even at a position where the shadow of the annular body is cast, the shadow of the annular body is not cast over the image, and the light from the annular body is not highlighted either, enabling the player to clearly visually check the essential image and enjoy playing a game.

[0015] According to another aspect of the invention, there is provided a gaming machine including: a plurality of symbol strips (for example, reel belts **340**) each having a plurality of symbols; a plurality of annular bodies (for example, reel wheels **330**, particularly rims **330a** and **330b**, any other body to which the symbol strip is attached annularly) to which each of the symbol strips are annularly attached; image display means (for example, liquid crystal **504**) provided in front of the plurality of annular bodies and configured to display an image concerning a game; and a light source (for example, fluorescent lamps **510**) configured to illuminate the symbols from a slanting direction of a front of the symbols, wherein the plurality of annular bodies are formed to reflect light from the light source in the direction of the image display means.